
Houghton-le-Spring Rural District Council.

Report
OF THE
Medical Officer of Health
For the Year ended December 31st, 1919.

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Houghton-le-Spring Rural District Council.

REPORT
OF THE
MEDICAL OFFICER OF HEALTH

For the Year ended December 31st, 1919.

HOUGHTON-LE-SPRING,
May, 1920.

GENTLEMEN,

I have the honour of submitting for your consideration and acceptance my fifth Annual Report of Vital Statistics and Sanitary Work for the year ended 31st December, 1919.

**NATURAL AND SOCIAL CONDITIONS
OF THE DISTRICT.**

Division of the District.

The Houghton-le-Spring Rural District is comprised of 14 Parishes, viz.: Eppleton Great and Little, Herrington East and Middle, Herrington West, Moorsley, Morton Grange, Newbottle, Offerton, Penshaw, Rainton East, Rainton West, Silksworth, Warden Law, and Moorhouse.

Area and Population.

The Area of the District in Acres is (land and inland water), 13,190.

The Population of the whole District at the census in 1911, was 25,518. Total families or separate occupiers, 5,260, and average number of persons per house, 4.85.

The Estimated Population of your District, obtained by house-to-house visitation at the latter end of the year, is 26,007. The population, as estimated by the Registrar General, for the Birth-rate is 27.125, and for the Death-rate 26.039.

PHYSICAL FEATURES AND GENERAL CHARACTER OF THE DISTRICT.

The surface of the district is undulating and hilly in parts, especially on the eastern boundary, reaching a maximum of 540 feet above sea level at High Moorsley. The soil is generally boulder clay of varying depths, with sometimes beds of sand and gravel. The whole is underlain, especially on the eastern boundary by dolomite or magnesian limestone, which in places crops out to the surface. This limestone contains underground reservoirs from which the district obtains its water supply. On the western boundary lie the coal measures with blue stone, shales and sand stones, separated from the magnesian limestone by tracts or dykes of permian.

Occupations.

Practically the whole population in the district is employed in the work of coal-mining, and located in villages and towns in close proximity to the collieries; the remaining portion being employees of farming and agricultural work, tramways, electric power work, steel works, and co-operative societies.

VITAL STATISTICS.

Birth Rate.

The number of births registered in the district during the year was 769, of which 381 were legitimate males and 358 legitimate females; 13 illegitimate males and 17 illegitimate females.

The following table gives the number of births, including the birth rate for the last 5 years :—

Year.	Total Births.	Males.	Females.	Rate per 1,000.	Total Increase.
1915	846	431	415	29·82	447
1916	633	342	291	23·80	299
1917	647	352	295	23·81	323
1918	687	338	349	25·87	282
1919	769	394	375	28·35	302

Deaths.

The total number of deaths registered as having occurred within your district during the year 1919 was 425, comprising 225 males and 200 females, which gives the annual mortality rate of 16.32 per 1000 of the population.

Forty-two deaths of persons belonging to the district occurred outside the district, which increases the total number to 467; the corrected death-rate being therefore 17.93 per 1000; a slight increase on the preceding year.

The following table illustrates more clearly the changes in the birth and death rates for the last ten years :—

Year.	Birth Rate.	Death Rate.	Natural Increase per 1000 Living.
1909	38·6	14·30	21·68
1910	39·2	14·70	
1911	36·8	16·20	
1912	35·1	13·90	
1913	33·6	15·50	
1914	33·9	16·80	11·88
1915	29·82	17·06	
1916	23·80	13·66	
1917	23·81	13·29	
1918	25·87	17·03	
1919	28·35	17·93	10·42

The death rate is 63 per cent. of the birth rate, against 47.6, the average of the previous ten years.

The number of deaths under 5 years of age was 167, being 35.76 per cent. of the total deaths, compared with an average of 38.03 per cent. for the last five years.

Total Deaths under 5 years.

Year.	Total all Ages.	Total under 5 yrs.	Per cent. of Total Deaths.
1914	477	207	43.39
1915	428	209	48.82
1916	344	106	31.73
1917	324	116	36.11
1918	405	122	30.12
1919	467	167	35.76

The infant mortality—that is the number of deaths under one year—to 1000 births, was 148.24, against 132.22, the average for the previous five years.

Infant Mortality Rate for the past 10 years.

Year	Total	Rate	Year	Total	Rate
1910	123	127	1915	128	150
1911	147	156.3	1916	73	115.32
1912	111	120.3	1917	82	126.73
1913	129	144	1918	77	112.08
1914	152	157	1919	114	148.24

Of the deaths during the year, 199 occurred in the first quarter of the year, 92 in the second, 88 in the third, and 88 in the fourth.

*Number of Deaths and the Ages at which Death occurred
in each Parish :—*

Parish	Under 1 year	1-2 years	2-5 years	5-15 years	15-25 years	25-45 years	45-65 years	65 years & upwards	Total
Eppleton Gt. & Little ...	...	...	...	...	...	2	...	..	2
Herrington E. & M. ...	...	...	...	1	...	...	...	...	1
Herrington West ...	14	4	5	5	4	11	13	10	66
Moorsley ...	4	2	3	3	...	2	4	1	19
Morton Grange ...	5	...	3	1	1	3	1	9	23
Newbottle ...	34	6	6	14	12	13	18	34	137
Offerton ...	2	...	...	...	...	1	...	3	6
Penshaw ...	39	6	9	8	6	22	11	24	125
Rainton East ...	7	2	4	1	...	4	1	7	26
Rainton West ...	3	2	1	1	5	4	7	12	35
Silksworth ...	6	...	...	3	5	6	3	4	27
Warden Law ...	...	...	...	...	...	...	...	...	...
Moorhouse ...	...	...	...	...	...	...	...	...	...
	114	22	31	37	33	68	58	104	467

Eighteen deaths occurring in the district were certified by Coroner's inquest, two by Coroner's order, and eleven were uncertified deaths.

Two deaths occurred in the Northern Infectious Hospital, one was due to Scarlet Fever, complicated by Nephritis, and the other to Malignant type.

Forty-two transferred deaths of persons belonging to the district occurred at the following Institutions :—

Sunderland Royal Infirmary ...	...	...	10
County Asylum, Sedgefield ...	...	...	8
Royal Victoria Infirmary, Newcastle...	...	...	1
Poor Law Institution Hospital ...	...	...	5
Bootham Park Asylum, York ...	...	...	1
Childrens' Hospital, Sunderland ...	...	...	5
Mowbray House Private Hospital ...	...	...	1
Lambton House Private Hospital ...	...	...	1
War Hospital, Sunderland ...	...	...	1

The deaths from the principal Zymotic Diseases were .76 per 1000 of the population, against 1.0, the average for the previous five years.

<i>Population</i> ...	28367	25081	24444	24374	23687	26039
<i>Year</i> ...	1914	1915	1916	1917	1918	1919
Measles ...	...	30	...	6	3	3
Scarlet Fever ...	8	2	3	...	...	4
Whooping Cough ...	5	11	...	1	5	5
Diphtheria ...	8	12	4	5	2	6
Enteric Fever ...	9	4	2	...	4	1
Erysipelas ...	...	1	...	...	1	1

For the present year the deaths arranged as to age incidence are :—

Disease.	Under 5 years	Above 5 years	Total
Measles ...	2	1	3
Scarlet Fever ...	2	2	4
Whooping Cough ...	5	...	5
Diphtheria ...	5	1	6
Erysipelas ...	...	1	1
Enteric Fever ...	...	1	1
	14	6	20

INFECTIOUS DISEASES.

The following measures are taken in the Houghton-le-Spring Rural District to combat the spread of Infectious Diseases :—

1. Adoption of Infectious Diseases Prevention Act, 1890.
2. Each case is immediately visited after notification and if suitable isolation cannot be provided at home the case is at once removed to the Isolation Hospital. If, however, the surroundings and accommodation is satisfactory, instructions are given

verbally, and in some instances by printed slips, as to the best method to be followed to protect the unafflicted. Disinfectants are provided for use in the bedroom.

3. A complete investigation is made at the time of visit as to the probable source of infection, contacts, milk and water supply, &c.
4. After removal to Hospital, the room is disinfected—the clothing and bed-clothes being taken with the patient to Hospital for disinfection.
5. The conveyance of the patient to Hospital is carried out by Officers of your Council, in a horse ambulance.

The total number of Infectious Diseases notified during the year was 558. The following table gives a clear indication of the number of cases for the past five years:—

Diseases	1914	1915	1916	1917	1918	T'tal	Average Rate for previous 5 years	1919	Attack Rate
Diphtheria	23	43	31	21	10	128	1·01	35	1·3
Erysipelas	29	25	17	9	5	85	·67	15	·5
Scarlet Fever	366	85	55	54	64	624	4·8	131	5·03
Enteric Fever	21	8	12	10	13	64	·5	8	·3
Pulmonary Tuberculosis	42	59	41	38	30	210	1·6	44	1·6
Other T.B. Diseases ...	23	66	21	30	31	171	1·3	35	1·3
Oph. Neonatorum ...	5	5	3	1	7	21	·16	13	·4
Measles	} not notifi able	6	489	225	720	9·9	194	7·4	
Rubella			4	71	9	84	1·1	1	·03
Pneumonia	...	...	...	...	...	...	...	69	2·6
Malarial Fever	...	...	...	...	...	...	...	11	·4
Poliomyelitis	...	...	...	...	...	...	...	1	·03
Puerperal Fever	...	...	...	...	...	...	...	1	·03

During 1919 the number of deaths from Zymotic Diseases in your area was 20, this number is equivalent to a mortality rate of .76 per 1000 of the population.

The following table gives the distribution of deaths from Zymotic Diseases in the various parishes :—

Diseases	Herrington West	Newbottle	Moorsley	Morton Grange	Penshaw	Offerton	Silksworth	Rainton East	Rainton West	Eppleton Gt. & Little	Warden Law	Total
Scarlet Fever ...	...	1	...	1	1	...	1	...	...	...	...	4
Measles ...	...	2	...	...	...	...	...	...	1	...	...	3
Whooping Cough	...	2	3	...	...	...	...	...	...	...	...	5
Diphtheria and Croup...	1	3	...	...	2	...	...	...	...	...	...	6
Typhus Fever ...	...	...	...	...	...	...	...	...	...	...	...	...
Enteric Fever ...	...	1	...	...	...	...	...	...	...	...	...	1
Erysipelas ...	...	1	...	...	...	...	...	...	...	...	...	1
	1	10	3	1	3	...	1	...	1	...	...	20

Typhus Fever.

No case of this disease has occurred in this district for many years.

Small Pox.

No cases since the Penshaw outbreak eight years ago. In view of the fact that cases of the above appeared in the County, notices were sent to all Medical Practitioners in the district to immediately report any cases that may arise in their practices. Notices of contacts, mostly military, were received and followed up.

Scarlet Fever.

Has prevailed in the district during the whole year, 131 cases were notified as such, the greater number occurring in the second, third, and fourth quarters of the year, viz :—7 in the first quarter, 38 in the second, 40 in the third, and 46 in the fourth. The incidence for the year was 5.03 per 1000, and the case mortality .11. The chief centres of activity were Newbottle (36), Penshaw (33), and Silksworth (27). In the last named, all the cases occurred in the two latter quarters of the year.

In the Newbottle District, at Shop Row, Philadelphia, 3 cases occurred in one house, and another case next door. Two cases occurred in one house at Garden Place, Front Street, and Railway Cottages, Dubmire.

In the Penshaw District, two cases in the same house were reported at The Square, Old Penshaw, Barrack Row, Chapel Row, and Winter's Terrace, and several cases in the same street at West Bridge Street.

In the Silksworth Area most of the cases were confined to Warwick Street and Somerset Street, and two cases were reported from the same house at Doxford's Cottages. Most of the cases occurring in this district were attending the same school in Silksworth Village.

The casual factor in the majority of cases would seem to point to infection by direct contact. The remarkable feature of the cases was its benign character, short duration of the illness, and the absence of extensive desquamation.

As to age incidence, 92 cases occurred between the ages of 5 and 15 years. Compared with the previous year, the following table indicates the age incidence and deaths.

	Under School Age	School Age	Above School Age	Total
1918	9	48	7	64
Deaths	Nil	Nil	Nil	Nil
1919	32	92	7	131
Deaths	2	2	Nil	4

Whooping Cough

Was prevalent in the earlier months of the year in the Moorsley and Newbottle areas, but did not assume the proportions of an epidemic. Five deaths were reported under this heading, and all of them were under school age.

Diphtheria.

The number of cases notified during the year was 35, an increase on the previous year; the attack rate being 1.3 per 1000 of the population, and a mortality rate of 17 per cent. compared with 20 per cent. for the previous year.

For comparison with the previous year, the following table shows :—

	Under School Age	School Age	Above School Age	Total
1918	4	6	Nil	10
Deaths	2	Nil	Nil	2
1919	5	30	Nil	35
Deaths	5	1	Nil	6

Locality.—All the cases reported, with two exceptions, occurred in the Penshaw (23) and Newbottle (10) districts. Most of the cases in the former area were confined to Bridge Street East and West, Lambton Street, and Mount Pleasant; and in the latter, two cases occurred in one house at North Back Lane, Newbottle, where the sanitary conditions were unfavourable, the house being badly ventilated, damp, and enclosed in a cul-de-sac, where sunlight never penetrated.

As to origin, most of the cases in the Penshaw area were attending Fatfield School, and evidence points to many of the cases having arisen by direct contact. The existence, too, of Scarlet Fever in the district, would tend to engender a morbid condition of the throat favourable to the growth of the diphtheria contagion if implanted thereon. As some of the inhabitants of Bridge Street had complained of the Sewage Farm adjoining, your Medical Officer inspected the works and considered the working of the farm, sewage beds, and effluent quite satisfactory, and in no way contributory to the prevalence of the disease in the district.

Some of the cases inspected were found to be Follicular Tonsillitis, a condition which is often mistaken for Diphtheria. Antitoxin continues to be supplied free to medical practitioners where necessary, and it is more generally used.

As to age incidence, five cases notified under school age, and 30 of school age.

Enteric Fever.

Eight cases were notified during the year, with an attack rate of .3, compared with .5 per 1000 for the previous five years, and a mortality rate of 12.5 per cent., compared with 30.7 per cent. for the previous year.

Six cases were reported in the Newbottle area in the third quarter, and of these four cases occurred in one house at Cement Street, Bankhead, and another next door. The case in the former house was due to direct infection, dirty sanitary conditions, and overcrowding. The other case occurred in Spring Gardens, Philadelphia. During the last quarter, two cases were notified, one at Hopper Street, Bankhead, nearly opposite the house in Cement Street, and the other at Penshaw Staithes.

Three cases were removed to hospital and all recovered. One death was registered as caused by this disease.

Diarrhœa.

The number of cases was not significantly large until September, when the brief spell of hot weather produced the usual run of cases. Eleven deaths were notified from this disease, compared with a similar number for the previous year; of these, all the deaths occurred in the first year of life, and were 2.4 per cent. of the total deaths.

Puerperal Fever.

Only one case was reported during the year, which terminated fatally.

Erysipelas.

Fifteen cases were reported during the year, six of which occurred in the first quarter, representing an attack rate of .5 per 1000, compared with .67, the average for the past five years. Three cases were under the age of 15 years, and the remainder varied from 35 to 68 years. Mortality, 1.

Cerebro-Spinal Fever.

Your area has been free from this disease for the past two years.

Ophthalmia Neonatorum.

Thirteen cases were brought to my notice during the year, representing an attack rate of .4 per 1000 of the population. This is an increase on previous years, and may be accounted for by the greater prevalence of Venereal Disease in the district.

Measles.

After a period of quiescence, during the first two quarters of the year, this disease commenced renewed activity. During the third quarter, in the Newbottle district, where 25 cases were reported out of a total of 35. In the last quarter it assumed epidemic proportions, and affected the whole district, 155 cases being notified. Of these, 45, or nearly 32 per cent., occurred at Newbottle, 31 at Penshaw, 18 at West Rainton, and 15 at Moorsley.

The attack rate is 7.4 per 1000 of the population, compared with 9.9, the average for the previous five years. Mortality, three, representing a case mortality of 1.5 per cent.

The following table indicates the age incidence:—

Under School Age	School Age	Above School Age	Total
92	99	3	194

And in the distribution of cases in their respective districts:—

Quarter	Herrington West	Eppleton Great	Morton Grange	Penshaw	Newbottle	Moorsley	Rainton West	Rainton East	Offerton	Silksworth	Total
First ...	...	...	...	...	...	...	3	...	...	...	3
Second ...	...	...	...	...	1	...	...	...	...	...	1
Third ...	...	1	3	2	25	...	1	...	1	2	35
Fourth ...	...	4	2	11	31	45	15	18	9	3	155
	5	2	14	33	71	15	22	9	4	19	194

Poliomyelitis.

One case of this disease was notified from the Morton Grange Parish. All contacts were examined and isolated for a week, and antiseptic sprays used for the throat and noses. No further cases developed.

Pneumonia.

There have been 69 cases of this disease notified in your district during the year. By far the greater number occurred during the first two quarters of the year, when an epidemic of Influenza was prevalent, so that many of the cases may be attributed to its presence. All types of this disease were notified, representing an attack rate of 2.6 per 1000 of the population, and the deaths numbered 50, which is 10.7 per cent. of the total number of deaths. It is to be hoped that advantage will be taken, in the future, of the free use of vaccines, either for mitigating or preventing the deadly effects of this disease.

Influenza.

Following the two waves of this disease in July and November, 1918, a third wave made its appearance in February, and had a fatality as great as the primary wave. It is possible to explain the excessive mortality as being due to seasonal conditions, shortage of food and fuel, and aggregations and movements of population. Sixty-seven deaths were recorded from this disease during the period, which is 14.3 per cent. of the total deaths, and a death rate of 2.5 per 1000 of the population.

Prophylaxis.

Simple preventive measures, such as fresh air, nasal drill, antiseptic applications to nose and throat, suitable dieting, avoidance of crowds, fatigue, and alcoholism were advocated in bills posted in districts. The Council were advised to utilize all available sources of nursing, and recommendations were made to test the value of serum in those who desired it.

The Elementary Schools in the district were closed from 12th February to 14th March inclusive.

Malaria.

Eleven cases were notified during the year. Seven through the Ministry of Health. In each case the disease had been contracted abroad.

Tuberculosis.

Under the Public Health (Tuberculosis) Regulations Order, 1912, 79 notifications were received in respect of 44 Pulmonary, and 35 other forms of this disease, as compared with 30 Pulmonary, and 31 other forms of Tuberculosis for 1918. The attack rate for this year being 1.6 per 1000 of population for Pulmonary, and 1.3 for other forms of Tuberculosis, as compared 1.6 and 1.3 for the previous five years.

Ten Pulmonary cases received institutional treatment at different Sanatoria in the County, viz.:—

Hollywood Hall Sanatorium	...	...	...	5
Hebburn Sanatorium	...	...	...	2
Stanhope Sanatorium	...	...	...	1
Sunderland Rural District Hospital	...	...	...	2

Of 14 specimens of Sputa submitted to the Bacteriological Department of the College of Medicine, two gave positive results, and 12 negative.

As to age incidence, the following table gives the age and distribution of Pulmonary cases:—

Ages.	Herrington West	Silksworth	Newbottle	Morton Grange	Penshaw	Rainton West	Offerton	Rainton East	Total
Under 1 year ...	...	...	...	...	...	...	...	...	...
1 year and under 5 ...	...	...	...	...	...	...	...	...	...
5 years and under 15 ...	1	...	4	2	3	1	...	...	11
15 years and under 25 ...	3	...	3	...	2	2	...	1	11
25 years and under 45 ...	2	4	2	3	5	1	1	...	18
45 years and under 65 ...	...	1	3	...	...	...	...	...	4
65 years and upwards ...	...	...	...	...	...	...	...	...	...
	6	5	12	5	10	4	1	1	44

Males -	-	-	-	-	23
Females	-	-	-	-	21

and other forms of Tuberculosis, showing the age and distribution of Non-Pulmonary Tuberculosis :—

Ages	Herrington West	Penshaw	Newbottle	Morton Grange	Silksworth	Rainton West	Total
Under 1 year	...	2	1	...	...	...	3
1 year and under 5	...	7	2	1	1	...	11
5 years and under 15	2	1	2	1	...	6	12
15 years and under 25	...	2	2	1	...	1	6
25 years and under 45	...	...	1	1	..	...	2
45 years and under 65	...	...	1	..	...	...	1
65 years and upwards	...	...	...	...	...	...	...
	2	12	9	4	1	7	35

Males - - - - 19
Females - - - - 16

Of the 35 cases of Non-Pulmonary Tuberculosis, the following table gives a classification of the different sites of the disease :—

Meninges	...	...	...	...	1
Bones and Joints	...	...	...	...	6
Glands	...	...	...	...	12
Abdominal	...	...	...	...	13
General	...	...	...	...	2
Organs	...	...	...	...	1
					—
					35
					—

The deaths from Pulmonary Tuberculosis were 25, representing a mortality rate of .9 per 1000 of the population, against 1.01 per 1000 for last year; and from Non-Pulmonary Tuberculosis, 11, mortality rate, .4, against .16 for 1918.

Among the many predisposing factors which have increased the incidence of this disease during the past year, I may briefly mention the Influenza epidemic, insufficient accomodation and consequent overcrowding, and the want of a proper and wholesome food supply.

For the treatment of Tubercular subjects in your district, the County Council have provided Sanatoria and Clinics in various parts of the County. Although much good is done by these methods, a more comprehensive scheme is necessary to complete the solution of the problem. The "training colony" system should be adopted for 'return' cases, and all patients discharged from Sanatoria should be followed up and receive that after care which is so essential to complete recovery. In addition, our aims should be fundamentally preventive. Suitable housing, social conditions, a wholesome food and purer milk supply, and public education will do much to lessen the high incidence of these diseases in our midst.

Dysentery.

No case has been notified in your area.

NORTHERN INFECTIOUS HOSPITAL.

The Matron and Caretaker having resigned their respective offices, your Council agreed to change the administration of the Hospital, and accordingly appointed a caretaker to look after the Hospital and disinfecting apparatus, and in conjunction with his wife, to board the nurse, probationer, and inmates at a fixed rate. A fully qualified nurse to look after the interests of the patients, and to work under the direction of the Medical Superintendent, and a probationer nurse for night duty.

Condition of the Hospital.

Your Council agreed, in May, to have the repairs to the buildings, which were suggested, done. The work, however, has been held up, owing to the difficulty of obtaining labour and material. The contractors have promised to make an early start, as soon as the necessary goods are obtained.

Admissions into Hospital.

The number of cases admitted into Hospital, from your district, during the year 1919, was 65, of these :—

Scarlet Fever	-	-	-	-	54
Diphtheria	-	-	-	-	8
Enteric Fever	-	-	-	-	3

Two cases died in Hospital, both of which were due to Scarlet Fever. One complicated with Bright's disease, and the other of the malignant type.

Owing to the departure of the caretaker and matron, and the necessity of cleaning the wards, the inmates of the Hospital, numbering five (all Scarlet Fever), were, by kind permission of the Hetton-le-Hole Sanitary Authorities, removed to the East Rainton Isolation Hospital, on December 28th, till such time as the Hospital was ready for their re-admission.

MATERNITY AND CHILD WELFARE.

The Durham County Council is responsible for the administration of Child Welfare Centres, and a Centre has been established in Houghton-le-Spring, which I feel sure will fulfil a long-felt want in the district. The objects of these Institutions are, that every prospective mother shall receive proper and adequate attention—ante-natal, natal, and post-natal; and that children up to the age of five years shall be tended with that assiduous care to fit them for their future trials in life. Reference to the Infant Mortality table for the past ten years, shows that as far as your district is concerned, the deaths of infants under one year of age is comparatively high. In the present year the three chief causes of death are :—(i.)—Developmental conditions (42) (immaturity, prematurity, debility, wasting, and atrophy); (ii.)—respiratory diseases (26); and (iii.)—Diarrhoea (11); a total of 79, or 69 per cent. of the total

number of deaths under one year. The greatest number of deaths (51) took place in the first quarter of the year, when Influenza was at its height, so that one may attribute this great proportion directly, or indirectly to its presence.

Taking the casual factors as a whole, I feel that many of the issues are preventable, providing appropriate measures are taken for their reduction, viz., improved sanitary methods and housing, attention to domestic cleanliness, education of expectant mothers in personal hygiene and temperance, and the care, management and feeding of infants. In your district there is great scope for improvement in the two last conditions, and I look upon the establishment of Maternity and Child Welfare Centres as a sure means of accomplishing these ends. Environmental improvement is always desirable, but broadly, the problem of infant mortality will be solved only in so far as the whole function of motherhood is fulfilled under favourable conditions.

VENEREAL DISEASES.

There is no diminution in the number of cases in your district. Cases coming under observation are sent to the nearest clinic for treatment, and usually there is no reluctance on the part of these individuals to comply with the request. Unfortunately, there are many, who after being attended for two or three successive weeks, fail to continue the prescribed treatment, and remain as before, a source of danger to the community. Voluntary action, as suggested by the Venereal Commission, does not completely fulfil the data on which prevention is based, more drastic and compulsory measures will be necessary before we obtain any effectual success in controlling the dissemination of these diseases.

HOUSING AND TOWN PLANNING ACT, 1909.

The prevailing conditions throughout the country have rendered it impossible to maintain the usual rate of progress in the matter of improvements under this Act.

Owing to the great scarcity of houses, there are at the present time many houses occupied, which, in normal times would have been considered unfit for human habitation.

The following are particulars of the inspections carried out during the year :—

1. Number of houses inspected	...	...	...	...	334
2. Number of houses found to be unfit for human habitation	...	...	...	...	* 12
3. Number of representations made to Local Authority, with a view to Closing Orders	...	...	...	...	1
4. Number of Closing Orders made by Local Authority					1
5. Number of houses made fit for human habitation without Closing Orders being made	...	...	...	...	18
6. Number of houses made fit for human habitation after Closing Orders were made	...	...	...	...	1
7. General character of defects found to exist:—Defective yard paving, damp brick paved floors, insanitary midden privies, defective lighting and ventilation.					

Housing Conditions Generally.

The following are particulars in connection with the housing accomodation of the district :—

Estimated population...	...	...	...	...	...	26,007
Number of houses	...	...	...	...	...	5,428
Number of houses occupied by more than one family						473
Number of houses overcrowded, on basis of two persons per room	...	...	...	...	...	797
Number of persons occupying same	...	...	...	...	...	5,850

Estimate of Housing Needs.

(a)	To meet the unsatisfied demand for houses	...	800
(b)	To replace existing houses which are either unfit, obstructive, or below a reasonable standard	...	300
	Total number of new houses required		<u>1,100</u>

During the past year there has not been the progress made with the building of new houses that was expected.

Similarly, repairs to existing houses have not progressed very satisfactorily. Many private owners find the cost of repairs and improvements almost prohibitive, and consequently the only improvements of note are those carried out by the Colliery Companies. In this connection mention may be made of the very desirable improvements which are in progress at New Penshaw. The rows of old houses owned by the Lambton & Hetton Collieries, Ltd., are gradually being demolished, and a good type of modern house is being erected in their stead.

Overcrowding.

That a considerable amount of overcrowding exists in the district is apparent from a glance at the figures given under "Housing Conditions Generally." Most of it is due to newly married couples having to reside with their parents, owing to their inability to secure a separate residence. The existing conditions can only be ameliorated when new houses are available.

Factories and Workshops.

These have been regularly inspected, and no breach of the sanitary regulations has occurred.

Bakehouses.

The bakehouses in the district have been systematically inspected, and were found to be particularly clean and well kept.

Lodging Houses.

There are none in the district.

Dairies and Milkshops.

The Dairies and Milkshops, together with the utensils employed therein, have been regularly inspected and found quite satisfactory.

Cowsheds.

Generally speaking, these are well lighted, ventilated, and drained. Each is provided with a good water supply, and particular attention is paid to the periodical lime-washing, and general cleanliness. The cows kept are of a superior class, some of the finest herds in the country being kept in this district. There are 49 dairy farms registered, on which 757 cows are kept.

SLAUGHTER HOUSES.

There are eleven registered Slaughter Houses in this district, which are regularly cleansed. Most of the beef and mutton has been imported.

Two quarters of Argentine beef were found, on inspection, to be unfit for human food, and were destroyed.

ASHPITS AND PRIVIES.

The work of converting Privy Ashpits into Ash-Closets is being proceeded with in New Herrington, by the Lambton and Hetton Collieries, Ltd., and at Moorsley. A number of out offices, privately owned, require repairs to the hatches and doors. It has been difficult to obtain labour, but it is hoped better progress will be made in the near future.

DEPOSITS OF REFUSE AND MANURE.

Owing to several places used as deposits for house refuse having become filled up, it is becoming increasingly difficult to obtain suitable places of deposit. Complaint was made about town manure having been deposited near the cottages at Coxgreen Station, and causing a nuisance. The deposit was stopped.

WATER CLOSETS.

A few water closets have been substituted for privies and ashpits.

DEFECTIVE YARD PAVING.

A number of yards belonging Colliery houses have been re-paved, but it would make a better and more permanent job if the yards were cemented.

HOUSE DRAINAGE.

New sewers have been laid in Cement Street, Hopper Street, and William Street, Dubmires, and new sewers are being provided for the houses at New Penshaw, which are being entirely rebuilt.

WATER SUPPLY.

The District is supplied by the Weardale & Consett Water Co., The Sunderland & South Shields Water Co., and the Lambton & Hetton Collieries, Ltd. The supply has been satisfactory. There has been no complaint as to the quality of the water, and it has not been considered necessary to have any samples taken for analysis.

REMOVAL OF HOUSE REFUSE.

The scavenging is done by contract, and during the war has been let from year to year. For convenience, the district is divided into 26 sub-districts. The number of

houses scavenged was 5,497, at a cost of £4,761 8s. 3d., being at the average rate of 17s. 7d. per house per year, an advance of 30 per cent. on the previous year's letting.

The work has, with the exception of three or four districts, been fairly satisfactorily performed. Carbolic powder is supplied to the cartmen for disinfecting the closets immediately after cleansing.

SEWAGE DISPOSAL.

The sewage is collected for treatment at :—

- | | | |
|----------------------------------|-----|--------------|
| 1. The Sedgeleth Sewage Farm | ... | 19.224 acres |
| 2. The South Biddick Sewage Farm | ... | 4.550 „ |
| 3. The William Henry Pit | ... | — |

The sewage farms are very well attended to by a practical foreman, who has had considerable experience in market gardening. The results have been highly satisfactory, and the advance in the price of produce has left a handsome profit on the year's farming.

The tanks and filters at the William Henry Pit continue to produce a satisfactory effluent. All the works have recently been affected by subsidence caused by colliery workings.

MAIN SEWERS.

The sewers are regularly flushed and disinfected, crude carbolic acid being used.

DISINFECTANTS.

Twelve tons of carbolic powder has been used, besides liquid disinfectants, which are gratuitously supplied in all cases of infectious disease.

During the past year the whole of the elementary schools in the district were disinfected, and also 218 dwelling houses where cases of infectious disease had occurred.

*Summary of work done in the Inspector of Nuisances'
Department during the year 1919.*

					Number of Informal written Notices by Inspector	Number of Formal Notices by order of Authority	Number of Nuisances abated after Notice
I. PUBLIC HEALTH ACTS.							
Dwelling-houses and Schools ...	{ Foul Conditions ...				5	4	5
	{ Structural Defects ...				81	31	60
	{ Overcrowding ...				16	4	4
Lodging Houses	...	...	...	...	...	...	...
Dairies and Milkshops	...	...	...	...	...	...	...
Cowsheds	...	...	...	...	3	...	3
Bakehouses	...	...	...	...	1	...	1
Slaughter-houses	...	...	...	...	1	...	1
Ashpits and Privies	...	...	...	...	64	40	38
Deposits of Refuse and Manure	...	...	...	...	5	...	5
Waterclosets	...	...	...	...	7	...	6
Defective Yard Paving	...	...	...	...	12	...	11
House Drainage	{ Defective Traps ...				11	5	11
	{ No Disconnection ...				2	1	2
	{ Other Faults ...				81	23	79
Water Supply	...	...	...	...	19	5	17
Pigsties...	...	...	...	...	1	...	1
Animals Improperly Kept	...	...	...	...	1	...	...
Offensive Trades	...	...	...	...	...	...	...
Smoke Nuisances	...	...	...	...	...	...	...
Other Nuisances	...	...	...	...	...	...	...
Damp Walls	...	...	...	...	23	2	17
Defective Roofs	...	...	...	...	13	...	11
Insufficient Ventilation	...	...	...	...	22	...	18
Defective Spouting	...	...	...	...	19	...	18
TOTALS ...					387	115	308

The natural increase per 1,000 living was:—

	1916	1917	1918	1919
England and Wales	7.6	3.4	.1	4.7
Durham County	12.0	9.7	7.3	10.1
Houghton-le-Spring Rural District Council	10.14	10.52	8.8	10.4

The following table shows the Chief Vital Statistics for 1919, compared with those of the County, per 1,000 of population:—

	Houghton-le-Spring R.D.C.	Administrative County
Birth-rate	28.35	23.35
Death-rate	17.9	13.17
Infant Mortality	148.2	113.0
Zymotic Diseases	1.1	.87
Small-pox	nil	.0009
Scarlet Fever	.15	.09
Diphtheria	.23	.16
Enteric Fever	.03	.02
Measles	.11	.19
Whooping Cough	.19	.09
Diarrhoea	.42	.30
Phthisis Pulmonalis	.97	.81
Acute Respiratory Diseases	3.2	2.50
Influenza	2.5	1.27

I remain, Gentlemen,

Your obedient servant,

F. R. V. LANGENBERG, M.B., Cm.,

Medical Officer of Health.

*To the Houghton-le-Spring
Rural District Council.*

TABLE II.
Cases of Infectious Disease Notified during the year 1919.

Notifiable Disease.	Attack Rate for Year 1919.	Number of Cases Notified.						Total Cases Notified in each Locality.											Total Cases Re- moved to Hospital.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
		At Ages—Years.						Eppleton Great.	Herrington E. and M.	Herrington West.	Moorsley.	Morton Grange.	Newbottle.	Offerton.	Penshaw.	Rainton E.	Rainton W.	Silksworth.		Warden Law.	Moorthouse.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
		Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 45.	45 to 65.															65 and Upwards.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
Small-pox ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...</

Northern Isolation Hospital, Newbottle.

Stanhope, Wolsingham, Sherburn House and Black Fell.

TABLE III.

Causes of, and Ages at Death during the year 1919.

Causes of Death.	Nett Deaths at the subjoined Ages of "Residents" whether occurring within or without the District.									Total Deaths whether of "Residents" or "Non- Residents" in Institutions in the District
	All Ages	Un- der 1 year	1 and un- der 2	2 and un- der 5	5 and un- der 15	15 and un- der 25	25 and un- der 45	45 and un- der 65	65 and up- w'ds	
1	2	3	4	5	6	7	8	9	10	11
All Causes { Certified ...	...	...	...	...	...	...	...	...	...	...
{ Uncertified ...	11	3	...	...	...	...	...	3	5	...
Enteric Fever ...	1	...	...	...	...	...	1	...	...	...
Small Pox ...	...	...	...	...	...	...	...	...	...	...
Measles ...	3	2	...	...	1	...	...	...	...	...
Scarlet Fever ...	4	...	...	2	2	...	...	...	...	...
Whooping Cough ...	5	3	1	1	...	...	...	...	...	...
Diphtheria and Croup ...	6	...	1	4	1	...	...	...	...	...
Influenza ...	67	7	4	8	9	6	10	12	11	...
Erysipelas ...	1	...	...	...	1	...	...	...	...	...
Phthisis (Pulmonary Tuberculosis) ...	25	...	...	...	2	8	9	6	...	...
Tuberculous Meningitis ...	1	...	...	...	1	...	...	...	...	...
Other Tubercular Diseases ...	11	1	1	1	...	3	5	...	...	...
Cancer, malignant disease ...	21	1	...	...	1	...	4	9	6	...
Rheumatic Fever ...	...	...	...	...	...	...	...	...	...	...
Meningitis ...	4	1	1	1	1	...	...	...	...	...
Organic Heart Disease ...	33	...	...	...	1	...	8	8	16	...
Bronchitis ...	34	17	2	4	1	...	1	1	8	...
Pneumonia (all forms) ...	50	9	8	3	9	4	8	4	5	...
Other diseases of Respiratory Organs ...	6	3	...	...	1	...	...	1	1	...
Diarrhoea and Enteritis ...	11	11	...	...	...	...	...	...	...	...
Appendicitis and Typhlitis ...	...	...	...	...	...	...	...	...	...	...
Cirrhosis of Liver ...	...	...	...	...	...	...	...	...	...	...
Alcoholism ...	...	...	...	...	...	...	...	...	...	...
Nephritis and Bright's Disease ...	6	...	...	...	1	2	...	2	1	...
Puerperal Fever ...	1	...	...	...	...	...	1	...	...	...
Other Accidents and Diseases of Pregnancy and Parturi- tion ...	4	...	...	...	...	1	3	...	...	...
Congenital Debility and Mal- formation, including Pre- mature Birth ...	42	42	...	...	...	...	...	...	...	...
Violent Deaths, excluding Suicide ...	20	1	...	2	...	8	3	2	4	...
Suicide ...	5	...	...	...	...	...	2	1	2	...
Other Defined Diseases ...	103	16	3	5	5	1	13	11	49	...
Diseases Ill-defined or Un- known ...	3	...	1	...	...	...	...	1	1	...
Totals ...	467	114	22	31	37	33	68	58	104	...

TABLE IV.

Infant Mortality during year ended 31st December, 1919.
 Nett deaths from stated causes at various ages under 1 year of age.

Causes of Death.	Under 1 Week.	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total under 4 Weeks.	4 Weeks and under 3 Months	3 Months and under 6 Months	6 Months and under 9 Months	9 Months and under 12 Mths.	Total Deaths under 1 Year.
All causes { Certified ...	...	...	...	...	...	...	...	...	...	...
{ Uncertified ...	1	...	...	...	1	1	1	...	...	3
Small-pox ...	...	...	...	...	...	...	...	...	...	...
Chicken-pox ...	...	...	...	...	...	...	...	...	...	...
Measles ...	...	...	...	...	...	...	...	1	1	2
Scarlet Fever ...	...	...	...	...	...	...	...	...	...	...
Whooping-cough ...	...	...	...	...	...	...	1	1	1	3
Diphtheria and Croup ...	...	...	...	...	...	...	...	...	...	...
Erysipelas ...	...	...	...	...	...	...	...	...	...	...
Tuberculous Meningitis ...	...	...	...	...	...	...	...	...	...	...
Abdominal Tuberculosis ...	...	...	...	...	...	...	...	...	...	...
Other Tuberculous Diseases ...	...	...	...	...	...	...	1	...	...	1
Meningitis (not Tuberculous) ...	...	...	...	...	...	...	...	1	...	1
Convulsions ...	...	...	...	...	...	1	1	1	1	4
Laryngitis ...	1	...	...	...	1	...	...	...	...	1
Bronchitis ...	...	...	...	...	...	6	6	5	...	17
Pneumonia (all forms) ...	...	...	...	...	...	1	1	6	1	9
Diarrhoea ...	...	...	...	...	...	...	1	2	1	4
Enteritis ...	...	...	...	...	...	2	2	2	1	7
Gastritis ...	...	...	...	...	...	4	1	...	...	5
Syphilis ...	...	...	...	...	...	...	...	...	...	...
Rickets ...	...	...	...	...	...	...	1	...	...	1
Suffocation, overlying ...	...	...	...	...	...	...	...	...	...	...
Injury at Birth ...	1	...	...	...	1	...	...	...	...	1
Atelectasis ...	2	...	...	...	2	...	...	...	...	2
Congenital Malformations ...	...	...	...	...	...	1	...	...	...	1
Premature Birth ...	9	1	...	...	10	...	...	...	...	10
Atrophy, Debility and Marasmus ...	16	5	3	1	25	2	1	1	2	31
Other causes ...	...	...	...	...	...	2	2	1	2	7
Influenza ...	...	1	...	...	1	...	3	3	...	7
	29	7	3	1	40	19	21	24	10	114

Nett Births in the Year :—

Legitimate	...	{ Males ...	...	...	...	381
		{ Females...	...	...	...	358
Illegitimate	...	{ Males ...	...	...	...	13
		{ Females...	...	...	...	17